



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,982	07/29/2003	Larry L. Bradford	ACA6114US2	7140
28249	7590	05/03/2006	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			SERGENT, RABON A	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Period for Reply

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6,9,11,13,14 and 16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,9,11,13,14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1711

1. Claims 1, 4, 6, 9, 11, 13, 14, and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Adequate support has not been provided for the amendment specifying that component (a) is a monomeric halogenated alkylphosphate ester non-aromatic organic flame retardant. Specifically, support has not been provided for specifying that the flame retardant is non-aromatic. Applicants have failed to provide any discussion with respect to how the specification supports the amendment.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 4, 6, 9, 11, 13, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fearing ('534 or '633) in view of Hardy et al. ('035) and Biranowski ('200).

Fearing discloses functional or non-functional poly(oxyorganophosphate/phosphonate) flame retardants which may be used in combination with other flame retardant agents. See

Art Unit: 1711

abstract and column 8, lines 5-36 within the references. Accordingly, Fearing establishes that functional or non-functional oligomeric phosphate linkage containing flame retardants may be blended with other flame retardants.

4. Fearing fails to disclose applicants' claimed oligomeric organophosphate flame retardant (first difference) and specific classes of flame retardants that meet applicants' component (a) (second difference). However, applicants' claimed oligomeric organophosphate flame retardants and the blending of oligomeric organophosphorus flame retardants with flame retardants that correspond to applicants' component (a) were known at the time of invention. With respect to the first difference, Hardy et al. disclose oligomeric flame retardants that correspond to applicants' claimed oligomeric flame retardants. See abstract. In view of the strong chemical and structural similarities between the oligomeric phosphorus compounds of Fearing and Hardy et al. and their utilities as polyurethane flame retardants, the position is taken that one of ordinary skill would have expected them to have comparable flame retarding qualities or to function as equivalents. It has been held that it is obvious to utilize a component for its known function. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244. Furthermore, it has been held that it is obvious to substitute one equivalent for another. *In re Ruff*, 118 USPQ 343 (CCPA 1958). Therefore, it would have been obvious to replace the poly(oxyorganophosphate/phosphonate) of Fearing with the oligomeric organophosphate of Hardy et al. With respect to the second difference, it is initially noted that Fearing establishes the equivalency of reactive and non-reactive oligomeric phosphorus containing compounds in their capacity as flame retardants, and it is again noted that Fearing establishes that either the reactive or non-reactive oligomeric flame retardants may be blended with other flame retardants. Biranowski discloses that flame


Art Unit: 1711

retardants that correspond to applicants' component (a) are blended with oligomeric phosphonate flame retardants to yield a flame retardant composition for polyurethanes. As reasoned before, given the strong chemical and structural similarities between the oligomeric phosphorus compounds of Fearing and Biranowski and their utilities as polyurethane flame retardants, the position is taken that one of ordinary skill would have expected them to have comparable flame retarding qualities or to function as equivalents. Accordingly, given the similarities between the oligomeric compounds and the flame retardant compositions containing them, the position is taken that it would have been obvious to utilize the non-oligomeric flame retardants (applicants' component (a)) of Biranowski as the "other flame retardants" of Fearing. In summation, the relied upon references are considered to establish the equivalency of the respective oligomeric flame retardants and to establish that additional flame retardants, corresponding to applicants' component (a) may be blended with the oligomeric flame retardants to yield a flame retardant composition, suitable for use within polymeric compositions, such as polyurethanes. The position is ultimately taken that applicants have simply blended known flame retardants in a manner clearly suggested by the prior art, so as to arrive at the instant invention.

5. The prior art rejections set forth within the previous Office action have been withdrawn in view of applicants' amendments and response.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent
April 27, 2006


RABON SERGENT
PRIMARY EXAMINER